UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,823	09/30/2003	C. Brian Atkins	200308889-1	6652

22879 7590 08/18/2008

HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER	
AUGUSTINE, NICHOLAS	
ART UNIT	**PAPER NUMBER**
2179	

NOTIFICATION DATE	DELIVERY MODE
08/18/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
mkraft@hp.com
ipa.mail@hp.com

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/675,823
Filing Date: September 30, 2003
Appellant(s): ATKINS, C. BRIAN

Edouard Garcia
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 06/09/2008 appealing from the Office action mailed 02/07/2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

2002/0122067	GEIGEL	9-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Geigel et al (US 20020122067 A1).

As for independent claims 1, 8 and 15, Geigel teaches methods for arranging a set of objects within an area (par.57), comprising:

- Initiating a first current binary tree comprising a leaf node (par.89) associating a first object selected from the set with the leaf node (par.69, last line and lines 1-5);
- Establishing candidate binary trees, wherein each of the candidate binary trees comprises the current binary tree and a respective leaf node associated with another object selected from the set, and locations of the leaf nodes within each of the candidate binary trees correspond to relative positions of the associated objects within the area (par.57-60, 64, 69-70 and 97; fig.3, 8-9);

- Computing a respective score for each of the candidate binary trees selecting one of the candidate binary trees as the current binary tree based on the computed score (par.77 and 145-150);
- Repeating the establishing, the computing, and the selecting until the current binary tree includes all the objects in the set (par.64 and 77; a plurality of images to be placed in a file explains the repeated step nature of b-d repeated until done);
- After the repeating, arranging the objects within the area in accordance with the locations of the leaf nodes within the candidate binary tree (fig.3, 4, 9 and par.77-79).

As for dependent claims 2-7,9-14 and 16-21, Geigel teaches the methods of claims 1,8 and 15, wherein the binary tree comprises:

- Claims 2,9 and 16
- At least one interior node (fig.3; wherein depicted are nodes inside and outside);
- And at least one leaf node emanating from the interior node (fig.3; wherein depicted as shown item 88 as interior node that has emanating a leaf);
- Wherein each sub tree of the current binary tree comprises a respective position within the binary tree and all interior nodes and leaf nodes emanating from the respective position (fig.3, 4,8);

- And wherein each sub tree of each of the candidate binary tree comprises a respective location (x/y spot on page) within the candidate binary tree and all interior nodes and leaf nodes emanating from the respective location (fig.3, 4,8).
- Claims 3,10 and 17
- Removing a sub tree of the current binary tree associated with a selected position (fig.3, 4);
- Inserting a new interior node into the current binary tree at the selected position (fig.3-6);
- Associating either a horizontal or a vertical partition (cut) of the area with the new interior node (par.57, lines 5-9);
- Inserting into the binary tree a new leaf node emanating from the new interior node (fig.3 and 9);
- Associating the new leaf node with the other object selected from the set (fig.8, 9);
- Inserting the previously removed sub tree back into the binary tree at the new interior node (fig.4 and corresponding text).
- Claims 4,11 and 18
- A leaf node in the current binary tree (figure 8);
- An interior node in the current binary tree (88);
- Claims 5,12 and 19

- For each of the interior nodes in the candidate binary tree, characterizing a respective bounding box for the objects included in the sub tree rooted in the interior node (fig.35, par.57, lines 2-13);
- For each of the objects, allocating a respective region of the area in accordance with the respective bounding box for each object (fig.35, par.59, lines 1-4 and par.70, lines 1-5).
- Claims 6,13 and 20
- Determining respective fractions of the areas occupied by the objects in each of the candidate binary trees (par.58, lines 2-9),
- The selecting comprises selecting as the candidate binary tree having a greatest one of the fractions of the area occupied by the objects in the candidate binary tree (par.71, lines 1-8 and par.86, lines 11-17)).
- Claims 7, 14 and 21
- The computing comprises assessing minimum and maximum object size values for all the objects in the area (par.90, lines 1-5 and par.91, lines 2-7).
- The selecting comprises selecting as the current binary tree the candidate binary tree having a greatest respective ratio of minimum area object size value divided by maximum area object size value (par.110, lines 5-12).

(10) Response to Argument

Beginning on page 5 of Appellant's brief (hereinafter Brief), Appellant argues specific issues, which are accordingly addressed below.

A1. The Applicant argues that Geigel does not disclose establishing candidate binary trees, wherein each of the candidate binary trees comprises the current binary tree and a respective leaf node associated with another object selected from the set, and the location of the leaf nodes within each of the candidate binary trees correspond to relative positions of the associated objects within the area.

R1. The Examiner does not agree. With the broadest interpretation of the current claim language and not reading into the specification as the Applicant implies the Examiner believes that Geigel does in fact teach that the location of the leaf nodes within each of the candidate binary trees correspond to relative positions of the associated objects within the area. For example please look at figure 9 and of course corresponding text relating to figure 9 (par.89). Geigel makes it clear of the structure of the binary tree and where the images are stored at in figure 8; in addition Geigel explains displaying the images and the output of the images in the end result in figure 9. As explained and depicted items 174, 176, and 178 are subgroups of a page 172 each of the subgroups contain two images 182, 184 and 186 when processed through the system the end result is that of 172 (PAGE 2) depicted in figure 9. The Examiner poses this scenario which is completely within the scope of Geigel that if one of the leaf nodes of 186 was the child of subgroup 174 (keeping in mind that 174 is an event an grouping of events along with image analysis of the details of the image determines the location of the picture) and one of the leaf nodes of 182 was the child of subgroup 178 then the position (location) of the images from one of the nodes from 182 and 186 will be in

different locations then what is depicted in figure 9 (PAGE 2), thus leading to the undeniable fact that Geigel fully supports establishing candidate binary trees in which the "location of the leaf nodes within each of the candidate binary trees correspond to relative positions of the associated objects within the area. Note paragraphs 59-60, 64, 89 and 97 for further support of the ideas expressed above. For instance note that an Event is a page, a sub event is a subgroup or pages and an event image is an image in a subgroup. In paragraph 97 Geigel points out "an image belonging to a sub event is grouped on the same page". The placement of a leaf node in a tree that was established (created by the system for purposes of data organization) clearly indicates the effectiveness of the end result in such that an images location on a page in an album can be solely determined by the placement of the leaf node inside of the binary tree, such as depicted in figure 8, if the images 166 corresponding to subgroup 158 where stored under subgroup 162 then it is present that the those images would be displayed in completely different positions in a different area, indicated as individual pages 156 instead of individual pages 150. Geigel refers figure 8 as a "possible layout solution" because it can be changed later, it is evident that figure 8 would result in a definite end result in such that images under specific subgroups will only be displayed under respective individual pages and the entire tree is a possible layout, which yields the fact that the tree is modifiable by the system. With the current understanding it becomes clear that Geigel in fact teaches the same functionality (although different terminology) as the claimed limitations presented in claim 1" establishing candidate binary trees, wherein each of the candidate binary trees comprises the current binary

tree and a respective leaf node associated with another object selected from the set, and the location of the leaf nodes within each of the candidate binary trees correspond to relative positions of the associated objects within the area"; also note page 13, column 1.

A2. The Applicant argues that Geigel does not disclose repeating the establishing, the computing, and the selecting until the current binary tree includes all the objects in the set.

R2. The Examiner does not agree. The repeating element of claim 1 is as follows: "repeating the establishing, the computing, and the selecting until the current binary tree includes all the objects in the set." Geigel describes his system as being able to process a set of images one at a time and not all at once hence "repeating" the process of establishing, computing and selecting. In paragraph 77 Geigel gives a summary of the overall architecture of the page layout system 124 in such that collection of images are inputted into the system and the system arranges these images in a fashionable manner that the user deems useful. This is done by computing the images by setting emphasis values on images so that images can be grouped and displayed together in the end result. The data structure choice to store the end result is a binary tree as depicted in figure 8 and the end result is depicted in at least figure 9 in such that one the system has processed the images and has established the tree the tree is then read by a viewer of the page layout system to present the page to the user as the user would deem useable means user preferences and the total over all

processes from the page layout system. Thus the Examiner believes that Geigel does in fact teach repeating the establishing, the computing, and the selecting until the current binary tree includes all the objects in the set for at least the reasons stated above in R1 and R2 of this response. Further Geigel express an iteration (repeating) the establishing of a binary tree for use in the system in figure 2 and paragraphs 67 and 71.

A3. Applicant argues that Geigel does not teach a limitation from dependent claim 3 which reads "associating either a horizontal or a vertical partition of the area with the new interior node".

R3. Examiner does not agree, Geigel expresses in paragraph 57 of the automated process of laying out a image on a page automatically. In figures 27-30 depicts various end results of a group of images that were processes differently to produce a different end result (layout), thus showing that image placement can be placed anywhere on the page, as suggested in paragraph 57.

A4. Applicant argues that Geigel does not teach limitations from dependent claim 5; "for each of the interior nodes in the candidate binary tree, characterizing a respective bounding box for the objects included in the sub tree rooted in the interior node", "for each of the objects, allocating a respective region of the area in accordance with the respective box".

R4. Examiner does not agree, Geigel discloses that images are placed by the system as well as there size and rotation and that each image is separate from other

images, with this Geigel teaches "for each of the interior nodes in the candidate binary tree, characterizing a respective bounding box (Geigel system determines the scale, rotation and x/y placement of the image on a page) for the objects (image) included in the sub tree (sub group on page) rooted in the interior node", "for each of the objects, allocating a respective region (image placement/ layout of images) of the area (page of album) in accordance with the respective box (relation to other images of page, corresponding to the layout and placement of those images)" (figures 23-38; par.56-58).

A5. Applicant argues that Geigel does not teach limitation from dependent claim 7; "determining that the computing of a respective score for each of the candidate binary trees comprises assessing minimum and maximum object size values for all the objects in the area".

R5. Examiner does not agree, Geigel discloses in paragraphs 110-115, placing objects in order by chronological order, wherein the system will take an image and compare it to other images to create an ordered list from small to larger (earliest to present). The images have chronological values associated with them which represents an "object size value" which is a number used to compare to other images with numbers for image placement. Further Geigel also discloses assigning computed values to images in calculation of fitness (par.57 and 109).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Nicholas Augustine/
Patent Examiner
AU 2179
8/11/2008

Conferees:

/Ba Huynh/

Primary Examiner, Art Unit 2179

/Weilun Lo/

Supervisory Patent Examiner, Art Unit 2179

Edouard Garcia
Hewlett-Packard Company
Intellectual Property Administration
Legal Department, M/S 35
P.O. Box 272400
Fort Collins, CO 80528-9599